



PRODUCT MANUAL

SILVER BULLET MICROPHONE SYSTEM

Thank you for choosing the K&K Silver Bullet Instrument Microphone. This device is a very powerful condenser microphone with excellent frequency range. Due to its versatile small size and its convenient attachment directly to the instrument, it can be used with a wide variety of different instruments:

- Wind instruments, shown here on a concert flute. Attach microphone close to blowhole of flute with approximate distance of 2" to 3". Use foam windscreen. For saxophones or trumpets, clip the mic to the bell.
- String instruments such as mandolin, banjo, piano, violin, acoustic guitars and ethnic instruments like sitar, bouzouki, saz, oud, balalaika and similar. For these instruments, remove the butterfly clip and attach the mic with the supplied dual-lock (Velcro-like) fastener.
- Percussion instruments, especially hand drums with open bottoms, such as darabokas, djembes, and similar as well as for kalimba and slit drums. Remove the butterfly clip and attach the mic with the supplied dual-lock (Velcro-like) fastener.

FEATURES

The Silver Bullet Microphone is handcrafted with the finest materials and has been specially designed for a wide range of application for the musician. The Silver Bullet Microphone has a lot of great features:

- Mic can be positioned very closely to the sound source without unwanted proximity effect
- Provides freedom of movement for the musician
- Extremely flat response electret condenser capsule
- Grade A electronics provide pre amplification and active balanced output
- Optional phantom power or 9-volt battery power supply

CONNECTING THE MIC

1. Plug the microphone into the 1/4" input jack of your preamp box.
2. Connect the balanced XLR output (or 1/4" line output in the optional preamp model) of the microphone's preamp box to a mixing console. If you want to connect the XLR output to a 1/4" input, you must use a proper adapter. However, this may result in signal loss. We recommend you exchange your preamp for the 1/4" output box.
3. For wind instruments, we recommend you use the supplied windscreen. For string and percussion instrument, leave the windscreen off for best frequency response.

POWER SUPPLY

If plugged into a phantom powered mixing console, the microphone's preamp will be powered through your board. If no phantom power is available, you will have to use a 9-volt battery in the preamp. The preamp powers the microphone with a special lower voltage power (different from phantom power). Do not plug the mic directly into a phantom powered input!

Battery life will be up to 150 hours. Please make sure to unplug the quarter inch plug of the microphone when your system is not in use. This will shut off the battery and extend its lifetime.

INSERTING AND CHANGING BATTERY

Open the control box by unscrewing the lid (one screw) and opening the lid. Insert new battery in the designated compartment and reattach lid and screw.

TECHNICAL DATA

Frequency range: 20 - 20,000 Hz

Sensitivity: 8 mV / PA / 1 kHz

Maximum SPL: 133dB

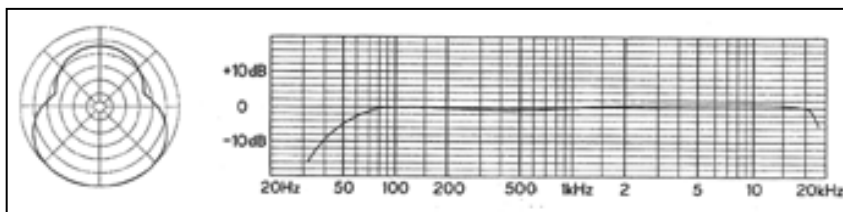
Polar Pattern: Soft cardioid

Preamp Power supply: 12-48 volt phantom power or 9 Volt battery (phantom power XLR type only)

Mic Power Supply: 5 Volt supplied by Silver Bullet preamp

Power consumption: less than 1 mA

Output: XLR balanced or 1/4 line level (depending on preamp model)



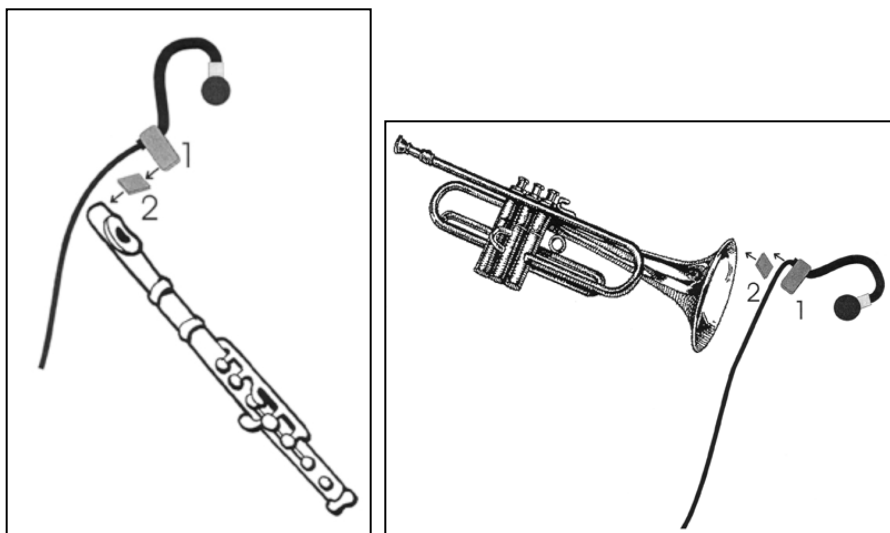
ATTACHING THE MIC WITHOUT THE BUTTERFLY CLIP

If the butterfly clip does not fit on your instrument, or if it is too bulky, you can choose to attach your mic with the supplied dual-lock. Dual-lock is a Velcro-like fastener with adhesive backing that interlocks when pressed together. Your mic comes with a piece of dual-lock looped around the base of the gooseneck and an additional piece in the box.

1. Carefully separate the mic from the butterfly clip (leave the dual-lock on the microphone).
2. Locate the second piece of dual-lock that came with your mic. It is about 1/2" x 2" in size. Cut the piece to fit your instrument. Remove the white backing and stick this piece on your instrument where you would like to position the mic.
3. Press piece 1 and 2 firmly together (see picture below). The dual lock works like "super" Velcro. It is very durable and will not wear out.

4. Bend the gooseneck into the desired position. The microphone can be removed and reattached as often as you want.

Using the same attachment technique, you can place the Silver Bullet on many different instruments because the dual-lock is flexible and can wrap around edges and rounded surfaces. To remove the dual lock from your instrument, pull it off and rub off the remaining adhesive with your thumb. Finish with rubbing alcohol.



ABOUT THE DUAL-LOCK JACK ATTACHMENT

Dual-lock has a very strong adhesive. If your instrument has a delicate finish, we recommend you stick a piece of masking tape to the instrument first and then place the dual-lock on the tape. If possible, you should choose a location like a tail piece that is made up of sturdier material.

When dual-lock is removed from the instrument, it may leave a dark residue on the instrument. This residue can easily be removed with NAPTHA (a solvent available at hardware stores) or WD-40. It can also be rubbed off with your fingers. Never use acetone, paint thinner, or similar harsh solvents! Please test any solvent you use on a small, hidden area of your instrument first to make sure it doesn't damage the finish. Most lacquered surfaces withstand NAPTHA or WD-40 without a problem but very old instruments or thinly varnished instruments may be vulnerable.